

required is that the end of the tube 51 be snipped off along the cutting line 67 to thus expose and open the end of the tube 51. After the saline solution has been drained from the tube 51, the plunger 58 may be manipulated so that the lens assembly may be ejected from the interior of the tube 51. Preferably, the hypodermic-type instrument 52 is completely sterilized inside and out prior to insertion of the lens assembly within the tube 51 and the injection of the saline solution thereinto. The entire sterile hypodermic-type instrument 52 and enclosed lens assembly is preferably then enclosed in a sterile package 68 indicated generally by the broken lines in FIG. 11.

The sterile package 68 may be in the form of a sealed pouch which itself is filled with a saline solution in the same manner as illustrated and discussed in connection with the embodiment of FIG. 10. When the sterile container 68 constitutes a saline-filled pouch, it will of course be understood that the end portion 53 of the tube 51 need not be sealed, and may be left open in the same manner that the tube 41 illustrated in FIG. 10 is left open. Thus, the tubular member 51 being sterile, this portion of the hypodermic-type instrument may be inserted through the relatively small 3.5 mm opening created by the surgeon so as to place the open end of the tube very close to the location where the surgeon wishes to deposit the lens assembly. The plunger 58 is then manipulated so as to inject the lens assembly into the eye, and the instrument is withdrawn, whereupon the surgeon may extend and position the lens assembly within the eye.

From the above, it will be apparent that we have provided a "soft" intraocular lens assembly that opens up several avenues for improvement in the procedure for the implantation of intraocular lenses in the human eye. Additionally, the combination of a "soft" material from which the lens assembly is fabricated and the packaging within which it is retained in a sterile condition and which serves to assist in the delivery of the sterile lens assembly into the eye, reduces the time that the surgeon remains in the patient's eye, thus reducing trauma to the patient and rendering the entire procedure more economical, thus benefitting the patient.

While we have specifically identified ocufilcon as being a suitable material from which the lens body 3 and the support structures may be fabricated, it should be understood that the other materials also identified are considered to be the full equivalent of ocufilcon and may be substituted therefor. As indicated above, the ocufilcon comprises the copolymer 2-hydroxyethylmethacrylate and methacrylic acid cross-linked with ethylene glycol dimethacrylate. In like manner, the equivalent hydrophilic resins identified above possess equivalent physical properties which accommodate hydration of the lens assembly to a degree of approximately 30 to 70% by volume, and which are rendered "soft" to the extent that the lens assembly, including the supporting structure, may be conformed about a transverse axis of the lens body so as to form a compact unit that may be inserted into the eye in such compact condition. It is of course understood that the physical properties of the resins or polymers of the invention are controlled by controlling the ratios of the modifiers and the crosslinking agents to the amount of the total polymer used in the reaction mixture. These ratios vary generally only a small amount from the ratios discussed above in connection with ocufilcon.

It is further understood that the properties of the optically transparent lens body can be modified by the addition, to any of the above-listed resin materials, of an ultraviolet filter compound which includes 3-(2 Benzyotriazolyl)-2-Hydroxy-5-Tert-Octyl-Benzyl Methacryl Amide.

Having thus described the invention, what is believed to be new and novel and sought to be protected by Letters Patent of the United States is as follows:

We claim:

1. An intraocular lens assembly for implantation in the human eye so that the optical Z axis of said lens assembly is coincident with optical axis of the eye when implanted comprising:

(a) an optically transparent lens body formed from a hydrophilic synthetic resin material and having a transverse dimension defining an outer periphery disposed about said optical Z axis, said outer periphery lying in a vertical plane perpendicular to said optical Z axis, said lens having X and Y axes lying in said vertical plane and mutually perpendicular to each other;

(b) a pair of resilient support members attached to said lens body at diametrically opposed attachment locations adjacent corresponding opposed intersections of said X-axis with said periphery of said lens body, said resilient support members projecting radially outwardly and extending circumferentially about said lens body in the direction of said Y-axis to provide resilient lens-body support portions which are diametrically opposed and which are spaced from the periphery of said lens body a distance greater than one-half the transverse dimension of said lens body; and

(c) first and second contact portions formed on at least one of said resilient support portions extending radially outwardly from said optical Z axis a distance greater than the remainder of said support portion, said first contact portion lying on the opposite side of said Y-axis from said second contact portion.

2. The combination according to claim 1, in which said support members are formed from elastically flexible resiliently deformable synthetic resin filaments.

3. The combination according to claim 1, in which said first and second contact portions are spaced equidistant from the optical (Z) axis of said lens body.

4. The combination according to claim 1, in which said support members extend anteriorly in the direction of said Z-axis, said support portions lying anteriorly of said vertical plane including said X and Y axes.

5. The combination according to claim 1, in which said support members are formed from hydrophilic synthetic resin filamentary material.

6. The combination according to claim 1, in which said pair of support portions lie in a common plane spaced anteriorly of said vertical plane including said X and Y axes.

7. The combination according to claim 1, in which each of said support members comprises an elastically flexible and resiliently deformable crescentiform loop of synthetic resinous filamentary material.

8. The combination according to claim 1, in which each said support member is formed from a length of synthetic resin filamentary material having first and second ends and configured to have a crescentiform loop shape said first and second ends of said filament being attached to the periphery of the lens body at